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ABSTRACT

A study focused on teaching students to write effectively in time-pressure situations, particularly on essay exams. Thirteen sections of freshman composition (205 students) were divided into two treatment groups. Half of the classes completed the exam-taking unit in a standard freshman text. The other half of the classes worked through an inquiry unit devised by the researcher which breaks exam writing into several specific skills: identifying logistical difficulties involved in the writing situation, reading critically and preparing effectively for the exam, analyzing exam questions, and organizing a coherent essay answer. The unit contained activities which allow students to practice each skill in small groups. Students' pretest and posttest scores were compared and the difference used as a measure of improvement level. Results indicated a significant positive effect for both groups. The inquiry group improved significantly more than the textbook group overall with average gains nearly twice as large as the textbook group. Future studies might focus on which parts of an inquiry unit are most helpful to students and which kinds of students benefit the most. (MG)

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RESEARCH ON ESSAY EXAMS: USING INQUIRY TO ENHANCE STUDENTS' LEARNING AND PERFORMANCE

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at the 1990

Conference on College Composition and Communication

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RESEARCH ON ESSAY EXAMS: USING INQUIRY TO ENHANCE STUDENTS' LEARNING AND PERFORMANCE

Introduction

My research project, which ran for two weeks last spring, focuses on teaching students to write effectively in time-pressure situations: particularly essay exams. I became interested in this area during my first semester of teaching freshman composition. Several of my students expressed concern over their inability to perform well on the essay exams they had to take in other classes. A typical complaint was, "I knew the material backward and forward, and I still made a 'C' (or a 'D', or an 'F') on the exam. I just couldn't get what I knew down on paper." Even students doing excellent writing in my class encountered this difficulty. Speaking with an experienced history professor at the University of Oklahoma confirmed that my students were not unusual; he informed me that over 50% of the students taking his freshman American history course fail the midterm exam. On a national level, the National Assessment of Educational Progress reported in 1981 that 90-95% of American 17-year-olds performed poorly on open-ended essay response items. Obviously, a problem existed.

The fact that many students who perform well on other types of written coursework have trouble succeeding on such exams suggests that writing under time pressure requires unique skills that many students lack. However, many composition courses

focus almost exclusively on long-term writing projects which can be revised through several drafts-- a very different writing process from that used in taking an essay exam. Since one goal of freshman composition courses is to prepare students for future writing tasks, it is important for teachers to help students develop the writing skills they need to perform well on essay exams.

My research study grew out of a desire to find an effective means of improving students' test writing skills. Unfortunately, instructional materials and research in this area were difficult to find. Several studies have suggested that instructing students on test-taking skills prior to an exam results in significantly higher scores and lower anxiety levels. However, most of these do not offer specific plans for this preparatory instruction (Bailey, 1987; Anderson and Armbruster, 1984). Other articles offer teaching suggestions, but little systematic data on how effective these suggestions are in enhancing students' skills (Meiser, 1982; Duthie, 1983, Simpson, 1986). Similarly, most freshman composition textbooks contain little or no material on essay exams. The units on exam writing that do exist provide mainly lists of study tips and models of essay questions and answers-- a very traditional presentation that allows students limited input and few opportunities to practice the writing skills involved. In short, there are few materials and almost no empirical data on how to best help students learn to write under time pressure.

Foci of Instruction

Since the literature seemed to support a need for more studies in this area, I began to work on a research design. Relying heavily on George Hillocks' Research in Written Composition: New Directions for Teaching (1986), I designed a study to compare the effectiveness of two different types of instruction in teaching essay exam writing.

In his analysis of composition studies from 1968 - 1985, Hillocks defines several foci of writing instruction. Two of these, teacher led discussion and working with models, are used primarily in traditional, "teacher-centered" classrooms. Teacher led discussion involves the teacher presenting material and directing questions about that material to one or more students. Working with models describes any activity in which students look at exemplary pieces of writing and analyze or try to imitate them. These two foci are typical of most existing textbook units on essay exams.

Another focus Hillocks defines, which occurs mainly in less traditional, "student centered" classrooms, is inquiry. Inquiry, according to Hillocks, is "any activity which focuses ths attention of students on [specific] strategies for dealing with sets of data, strategies that will be used in writing" (Hillocks, 1986, p. 249). In other words, inquiry instruction breaks a writing task into several cognitive skills, then gives students activities for practicing these skills individually and/or in groups. The important difference between inquiry

activities and teacher led discussion or models is that inquiry gives students practice in developing skills rather than just information about them.

Hillocks cites studies that show inquiry to be nearly two and a half times more effective than models or other teacher centered activities in improving several types of student writing. However, no studies have ever examined the effect of inquiry on exam writing skills.

Research Design

My research project compares two units of essay exam instruction: a traditional textbook unit, and an inquiry unit. Thirteen sections (205 students total) of freshman composition were divided into two treatment groups. Half the classes completed the exam taking unit in The St. Martin's Guide to Writing (Axelrod and Cooper, 1988, Second Edition), the standard freshman text at O.U. This unit gives extensive study tips and models of essay questions and answers for students to analyze. The other half of the classes worked through an inquiry unit I devised. My unit breaks exam writing into several specific skills-- identifying logistical difficulties involved in the writing situation, reading critically and preparing effectively for the exam, analyzing exam questions, and organizing a coherent essay answer. The unit contains activities which allow students to practice each skill in small groups.

Both groups of students took a pretest essay exam before

instruction and a posttest exam after instruction. The exams covered two sets of readings from a textbook on the history of English (McCrum et al., 1985). Both sets of readings had an eleventh grade readability level, were of equivalent length, and covered similar kinds of topics. Each exam consisted of a single broad essay question over one of the reading assignments, with both exams being similar in wording and difficulty.

My hypothesis was that both groups' exam scores would improve from pretest to posttest, but that students who completed the inquiry instruction would show significantly more improvement than those in the textbook group.

Instructors for the classes were experienced graduate teaching assistants in the University of Oklahoma English department. To control for teacher differences, all but one teacher taught one textbook section and one inquiry section. The essay exam units were incorporated into the instructors' regular teaching schedule; students' performance on both the exams and the unit activities influenced their semester grade in the course. This was done to insure student motivation. To control for differences in teacher coverage of exam material, teachers were instructed not to lecture over any of the readings covered on the exam; instead, they were to tell students that it was <u>their</u> responsibility to study and learn the material.

All instructors were observed for two full class periods during the study by one of seven trained observers. Observers noted on a checklist whether the teacher covered each activity

and assignment on the instruction schedule for that day, and also whether any unusual problems occurred. The observation reports indicated that all classes completed the schedule of activities for both units, and that there were no major disasters. Thus it is reasonably certain that all students within each group were taught the same material, in the same order, in basically the same way.

Measurement

The pretest and posttest exams were rated using a scoring system based on the one used to score the Educational Testing Services Advanced Placement Exam in History (ETS, 1986, 1988.) The system consists of a five category, fifteen point scale, with a set of content standards for each scoring category. I chose this system because it takes into account both the factual knowledge and the writing proficiency shown in each essay. Other scoring methods considered, such as impressionistic holistic scoring, primary trait scoring, and CORE scoring, focus on either content or organization and style, and thus do not measure all the skills used in exam writing.

The essays were scored by six trained graduate students from the department, who had not been involved in the project as teachers or observers. Scorers were trained in two meetings; then the papers were scored in four three-hour group sessions. Because interrater reliability was very high (r=0.925), there was no need for adjudicary scoring. These essay scores provided the data used to statistically analyze changes in students'

skill levels.

Results

Students' pretest and posttest scores were compared and the difference used as a measure of improvement level. T-test analysis within groups showed that both the textbook instruction and the inquiry instruction had a significant positive effect on students' exam scores ($p<.0001$). Students in the textbook group improved an average of 1.5 points on the 15-point scale, while students in the inquiry group improved by about 3 points. Both these effects were practically significant, with an effect size of 0.53 for the textbook instruction and 1.09 for the inquiry instruction.

However, as predicted, the inquiry group improved significantly more than the textbook group overall ($p<.005$), with average gains nearly twice as large as the textbook group. Also, none of the students in the inquiry group had posttests rated in the lowest scoring category, as compared with 15% of posttests in the textbook group. Because further analysis showed no significant effects for teacher differences, student gender, pretest achievement levels, or in the two test forms, these results are quite powerful.

Conclusion

In conclusion, I hope the results of this project will generate future study in this area. Since inquiry seems to have such a powerful effect on students' test-taking skills, I would like to see freshman composition textbooks offer more activities

and instructional materials of this kind. Also, future studies might focus on which parts of an inquiry unit are most helpful to students, and which kinds of students benefit from it the most. Finally, future research might focus on ways to incorporate essay exam instruction into content-area courses as well as writing courses. Whatever direction future study takes, it will be helpful in enhancing the quality of instruction in this important area.

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